

ABSTRACT

[0062] A regeneration system is provided that comprises of one or more diesel particulate filters (DPFs), tubing to connect the DPF to the engine, means to regenerate the DPF in place while the engine is not operating, and a control system to start, operate and stop the regeneration means. In one embodiment, the system is designed with a control system that automatically invokes a regeneration sequence after every start. The regeneration sequence may be initiated after every engine start and stop event, and as such ensures that every time the engine is started the filter will be free of soot. The system optionally starts the regeneration immediately after the engine stops, to take advantage of an already preheated filter, and subsequently the reduce the required electrical input. The system optionally includes a bypass valve which directs the exhaust flow through path alternative to the DPF when the DPF pressure drop becomes excessive. The system also optionally includes pressure switches to alert the operator that excessive back pressure levels have been achieved, signaling the need for system inspection and service.